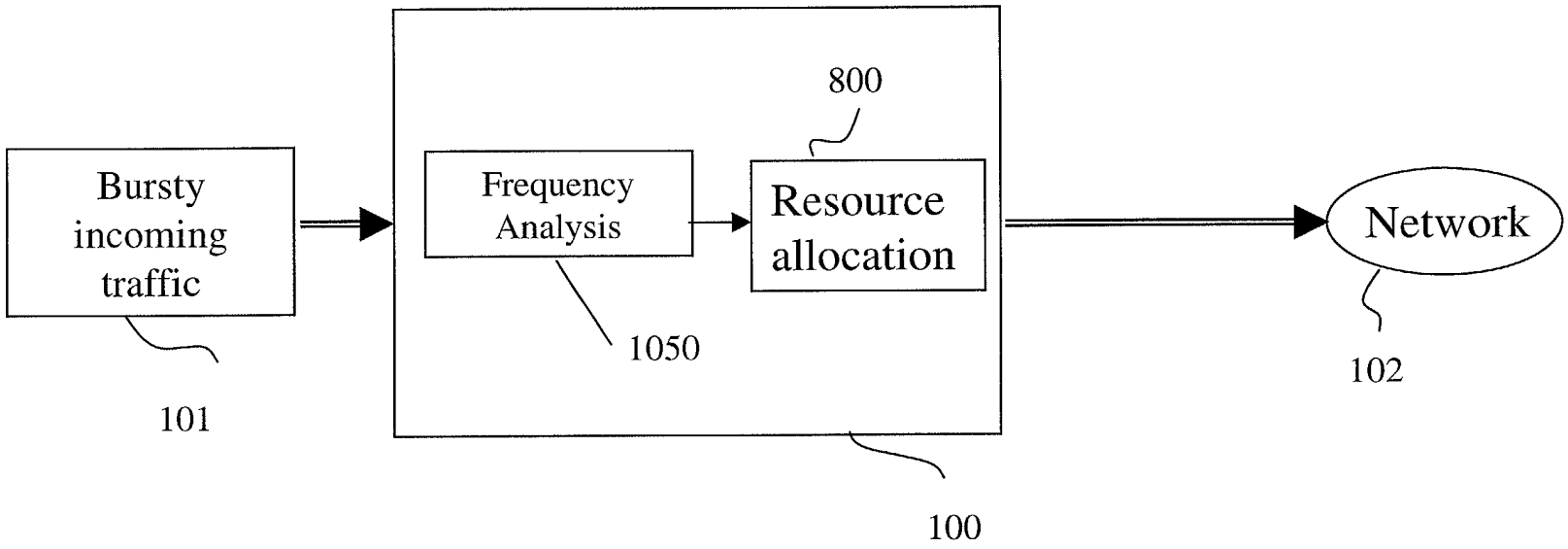


Fig.1a

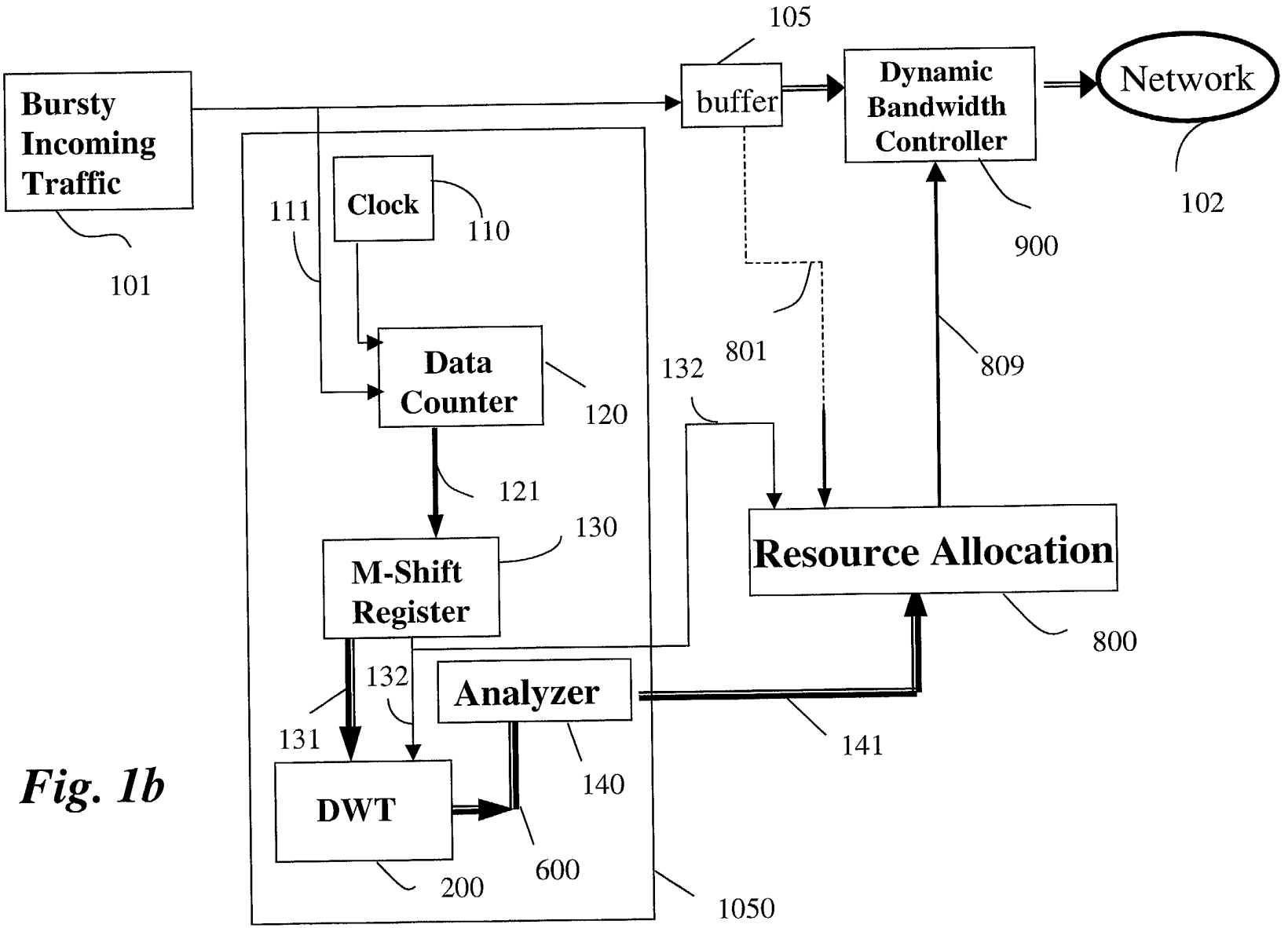
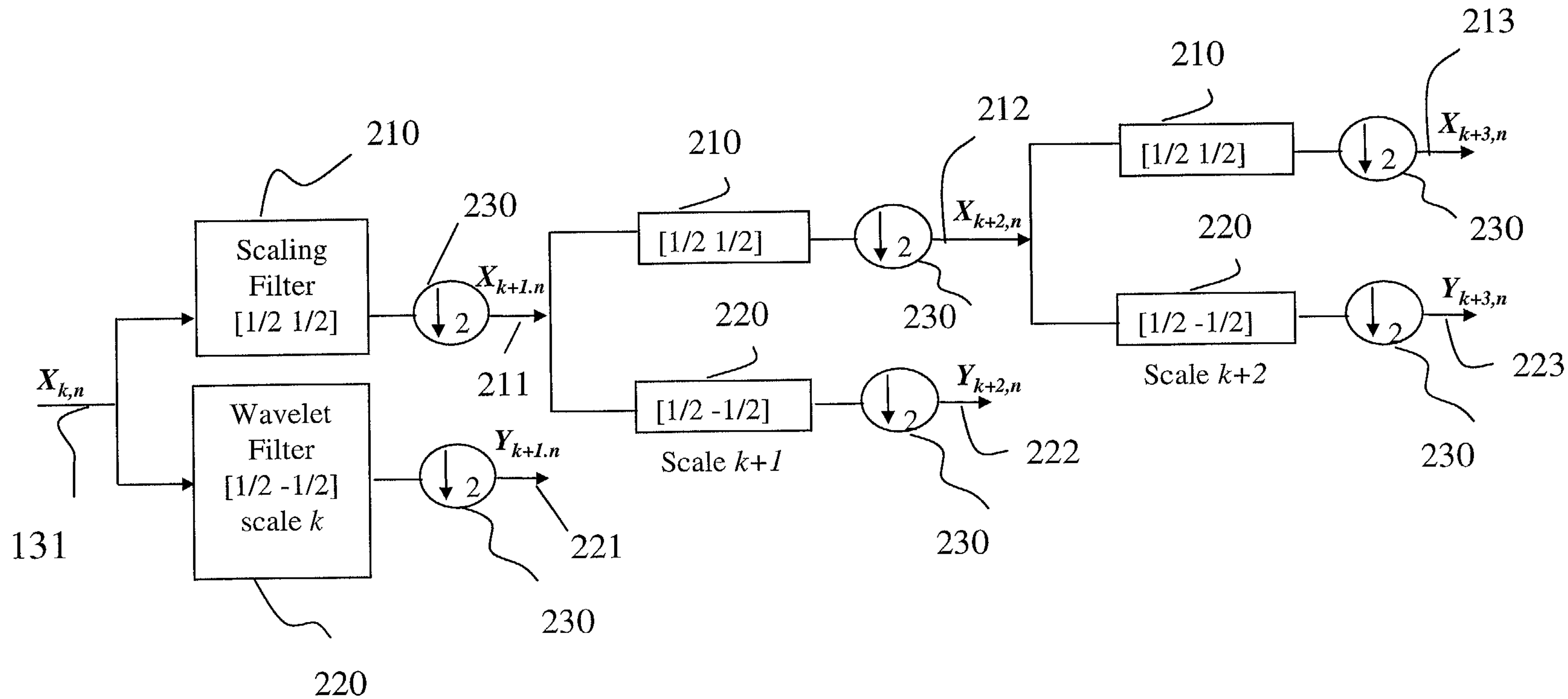

Bursty Incoming Traffic
101
buffer
105
Dynamic Bandwidth Controller
900
Network
102
Clock
110
111
Data Counter
120
121
M-Shift Register
130
132
801
809
Resource Allocation
800
Analyzer
140
141
131
DWT
200
600
1050

Fig. 1b



Scaling
Filter
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Wavelet
Filter
[1/2 -1/2]
scale k
[1/2 1/2]
[1/2 -1/2]
Scale k+1
[1/2 1/2]
[1/2 -1/2]
Scale k+2
$X_{k,n}$
$X_{k+1.n}$
$Y_{k+1.n}$
$X_{k+2,n}$
$Y_{k+2,n}$
$X_{k+3,n}$
$Y_{k+3,n}$
2
131
210
220
230
211
221
212
222
213
223

Fig. 2

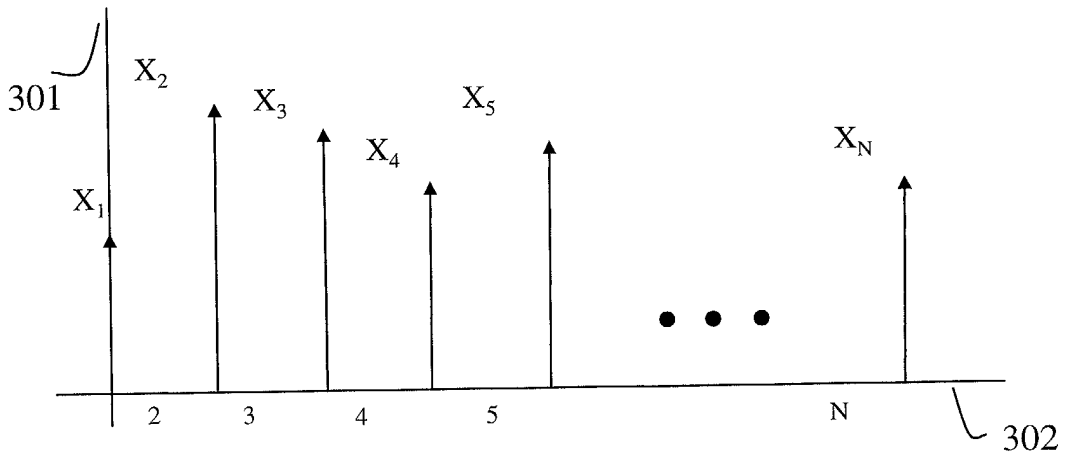

Fig. 3

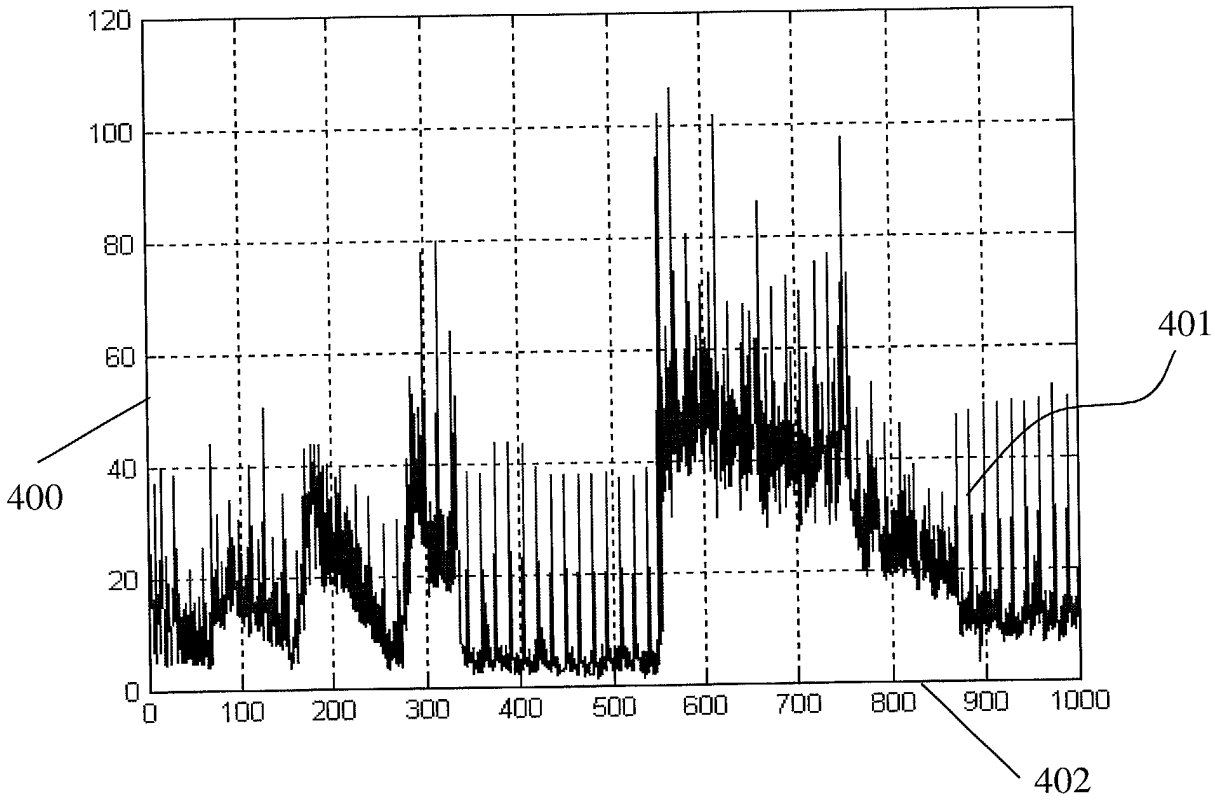
120
100
80
60
40
20
0
0
100
200
300
400
500
600
700
800
900
1000
400
401
402

Fig.4

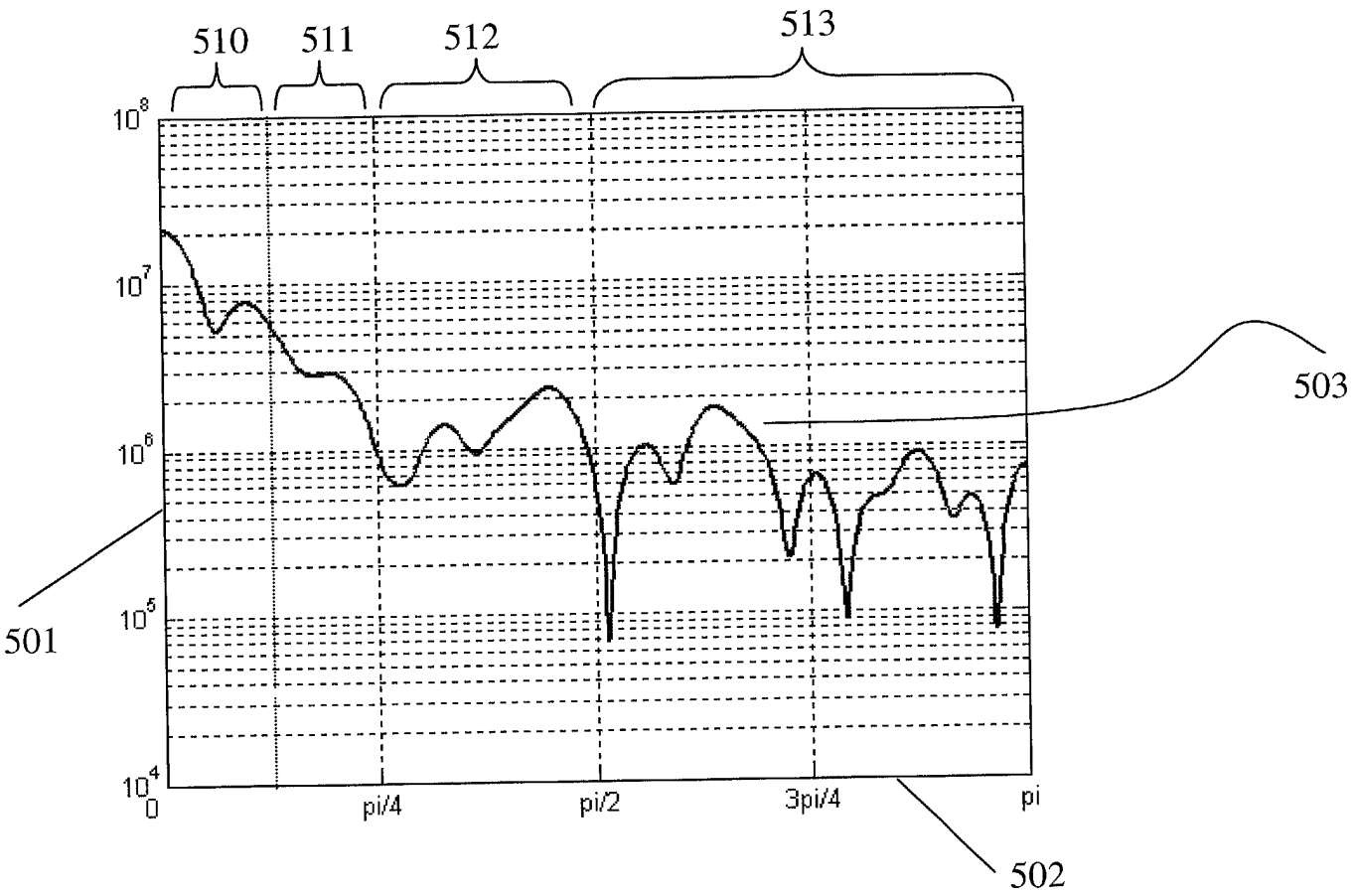

Fig.5

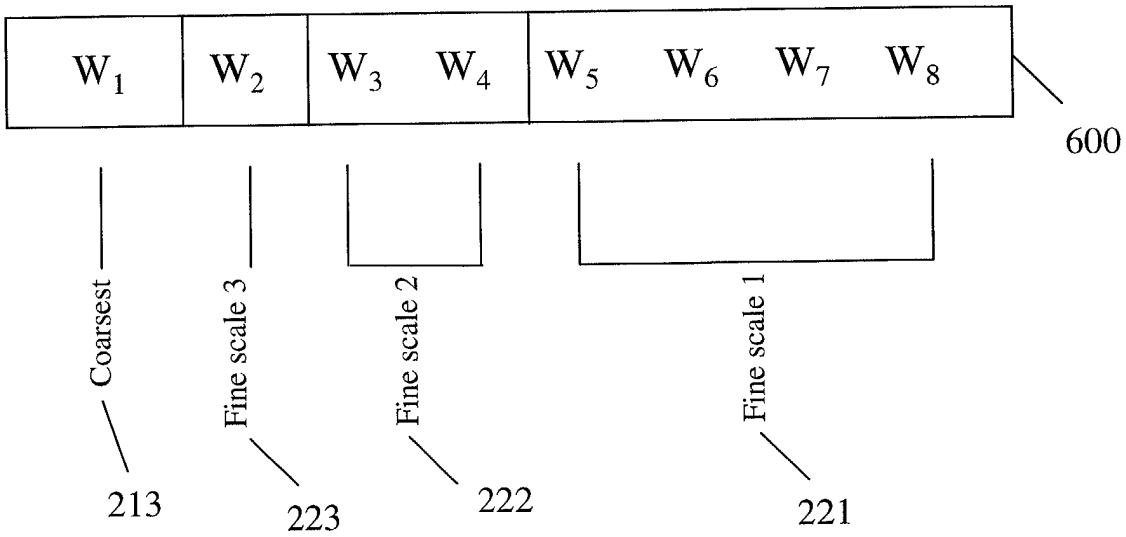

Fig. 6a

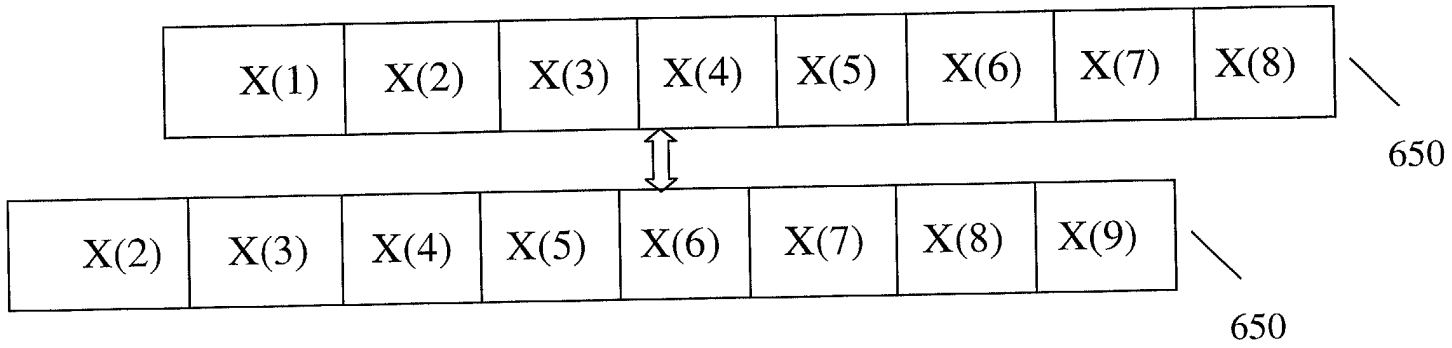

Fig. 6b

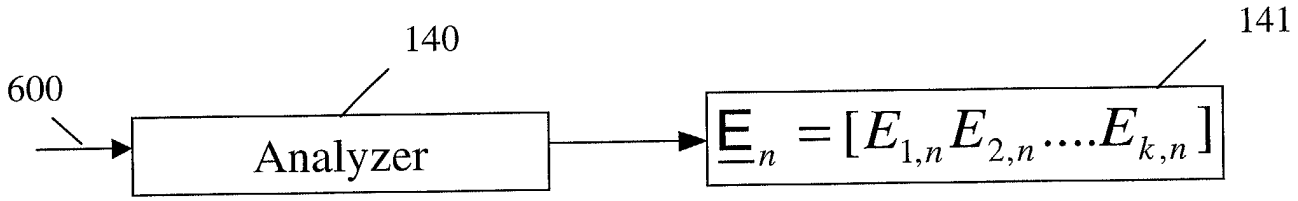

Fig. 7

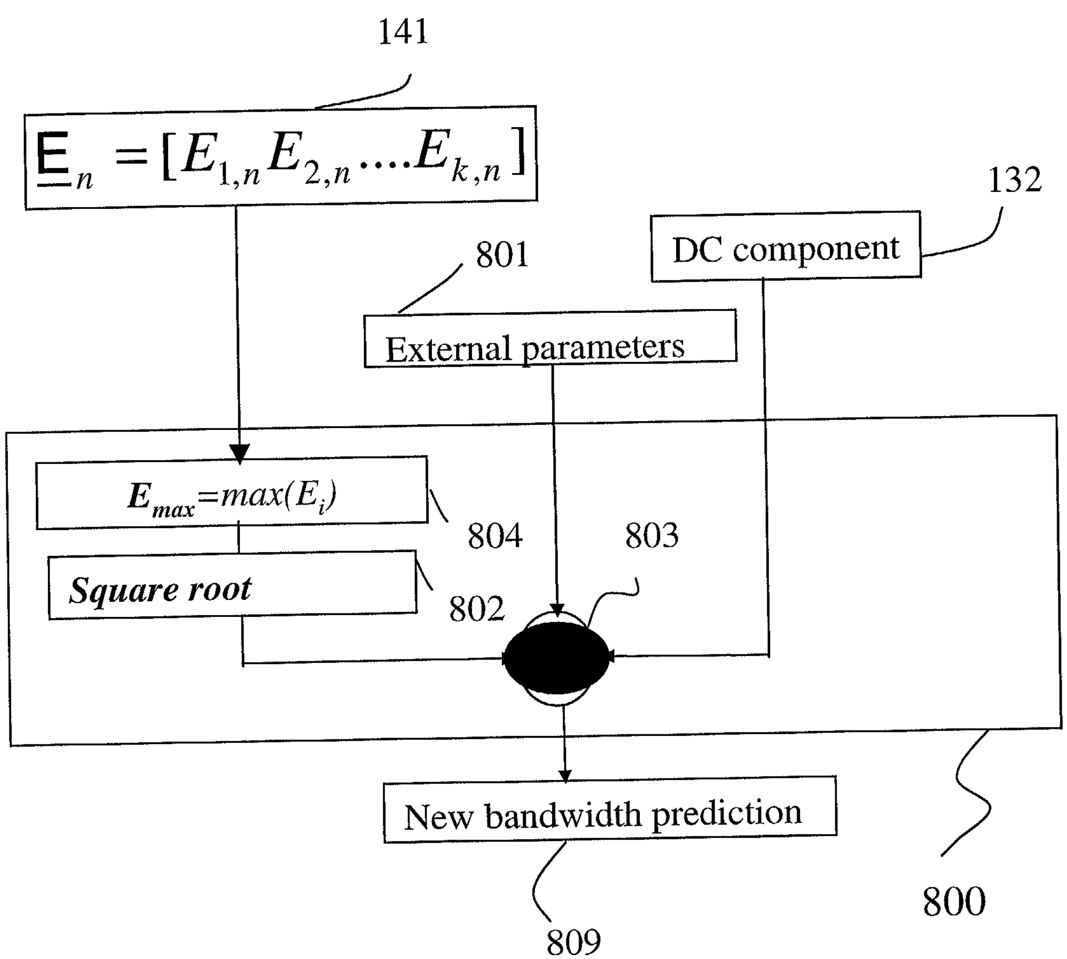
141
$\underline{E}_n = [E_{1,n} E_{2,n} \ldots . E_{k,n}]$
132
DC component
801
External parameters
E_{max}=max(E_i)
804
803
Square root
802
New bandwidth prediction
809
800

Fig.8

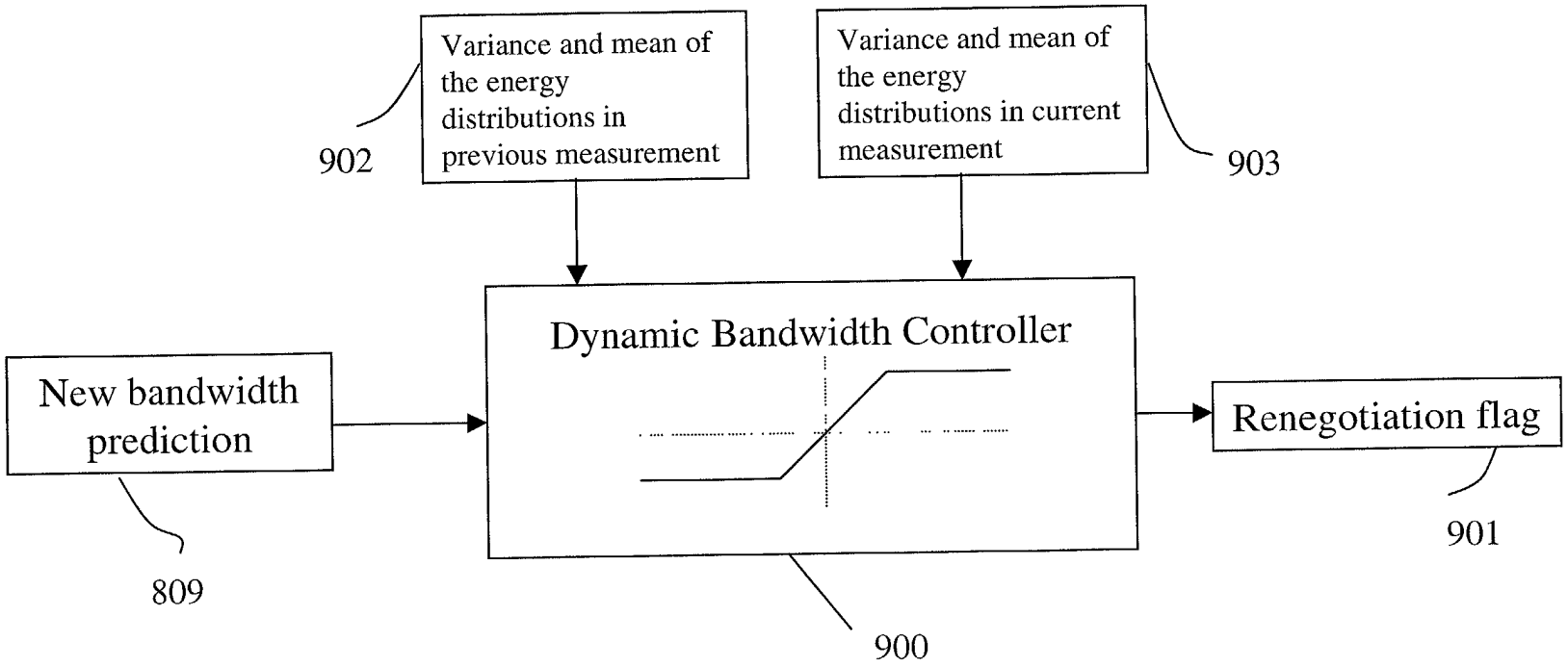

Fig.9

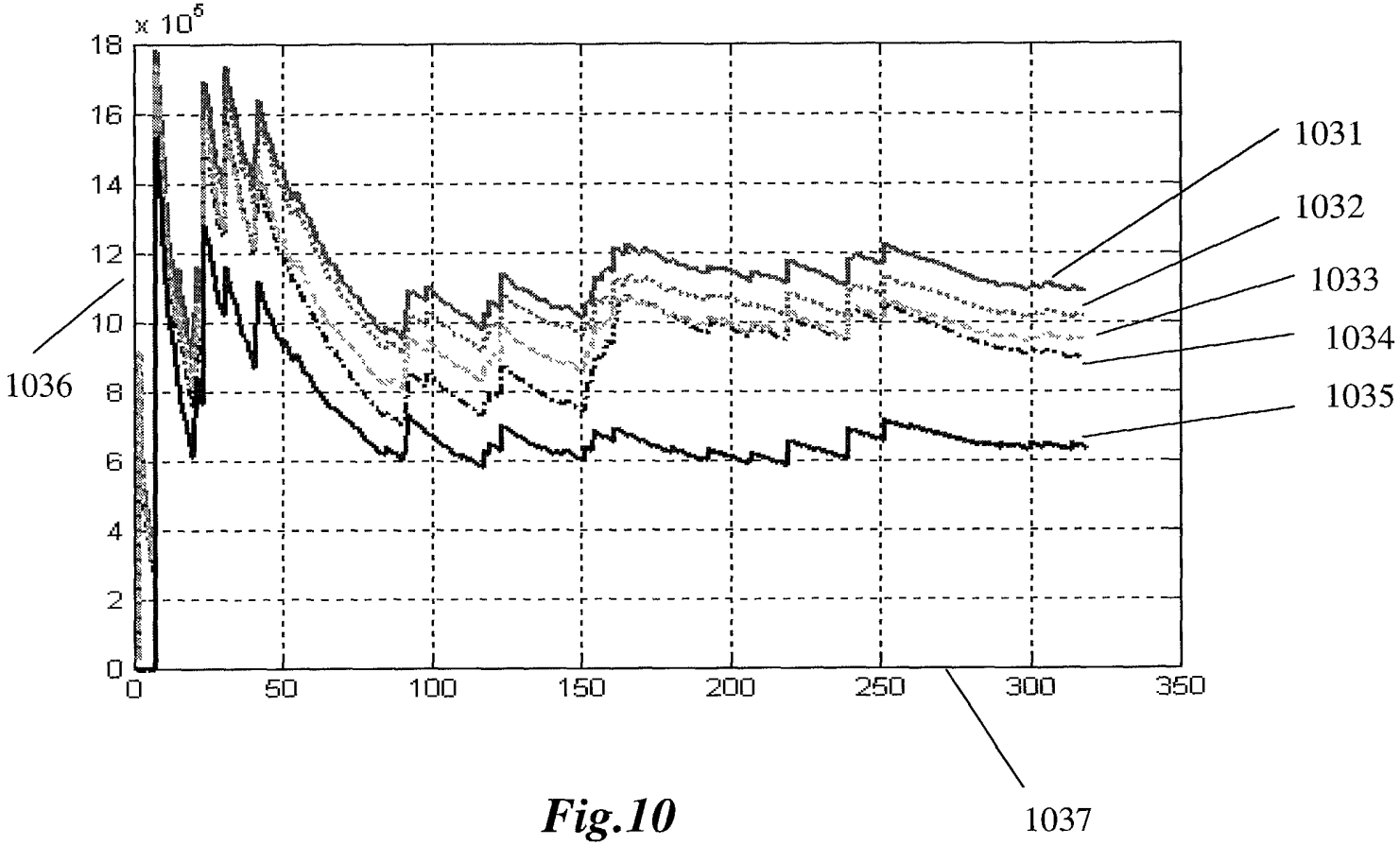

Fig.10

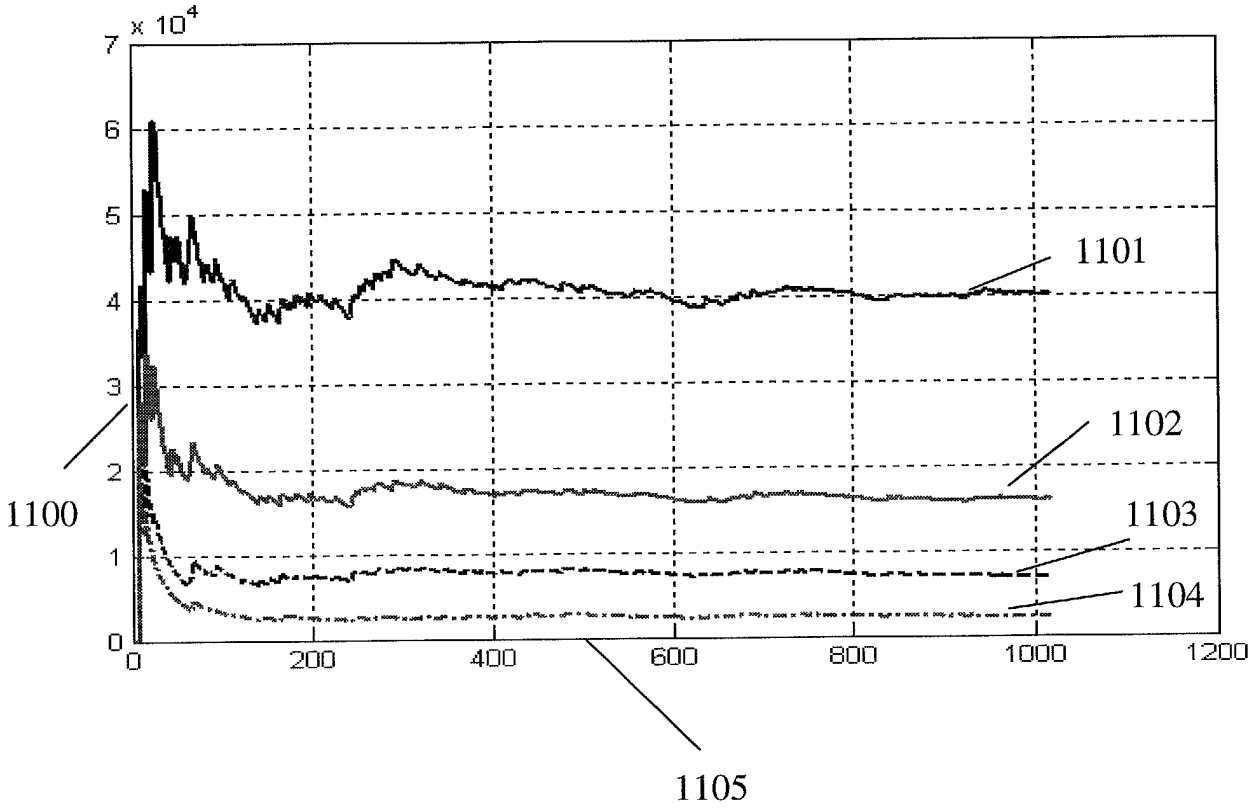

Fig.11

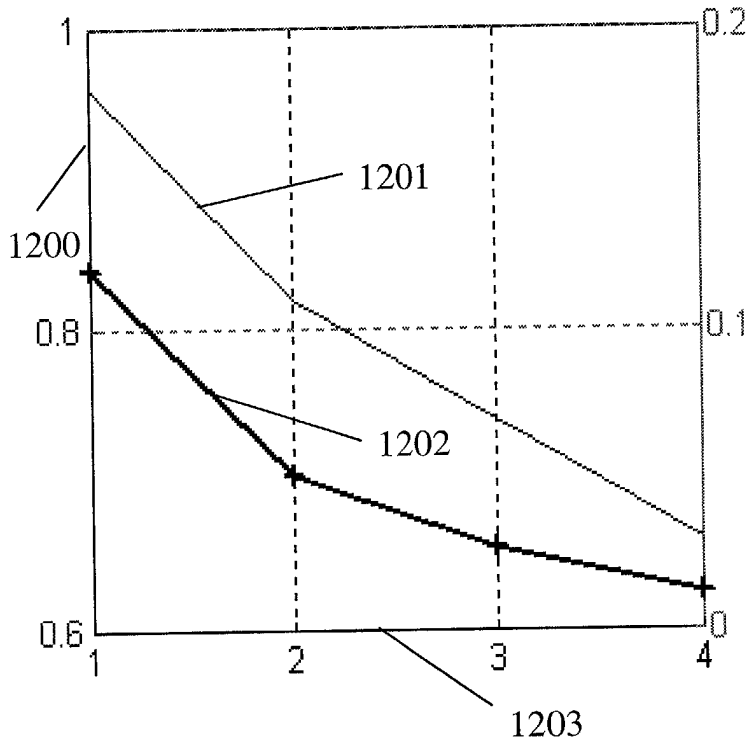

Fig. 12